

Call for Papers -- CPP 2020: Certified Programs and Proofs

Certified Programs and Proofs (CPP) is an international conference on practical and theoretical topics in all areas that consider certification as an essential paradigm for their work. Certification here means formal, mechanized verification of some sort, preferably with the production of independently checkable certificates. CPP spans areas of computer science, mathematics, logics, and education.

CPP 2020 will be held on **20-21 January 2020** in **New Orleans, Louisiana, United States** and will be co-located with POPL 2020. CPP 2020 is sponsored by ACM SIGPLAN, in cooperation with ACM SIGLOG.

More information about this edition and CPP series:
<https://popl20.sigplan.org/home/CPP-2020>

Topics of Interest

We welcome submissions in research areas related to formal certification of programs and proofs. The following is a non-exhaustive list of topics of interests to CPP:

- certified or certifying programming, compilation, linking, OS kernels, runtime systems, and security monitors;
- certified mathematical libraries and mathematical theorems;
- proof assistants (e.g. ACL2, Agda, Coq, Dafny, F*, HOL, HOL-Light, Idris, Isabelle, Lean, Mizar, Nuprl, PVS, etc)
- new languages and tools for certified programming;
- program analysis, program verification, program synthesis;
- program logics, type systems, semantics for certified code;
- logics for certifying concurrent and distributed systems;
- mechanized metatheory, formalized programming language semantics, and logical frameworks;
- higher-order logics, dependent type theory, proof theory, logical systems, separation logics, and logics for security;
- verification of correctness and security properties;
- formally verified blockchains and smart contracts;
- certificates for decision procedures, including linear algebra, polynomial systems, SAT, SMT, unification;
- certificates for semi-decision procedures, including equality, first-order logic, and higher-order unification;
- certificates for termination; formal computation models;
- mechanized (un)decidability & computational complexity proofs;
- user interfaces for proof assistants and theorem provers;
- teaching mathematics & computer science with proof assistants.



Important Dates

Abstract Deadline: 16 October 2019

Paper Submission Deadline: 21 October 2019

Conference: 20 - 21 January 2020

Program Committee Members

Jasmin Christian Blanchette (VU Amsterdam -- **co-chair**)
Catalin Hritcu (Inria Paris, France -- **co-chair**)
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Contact

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